

FIG. 1A

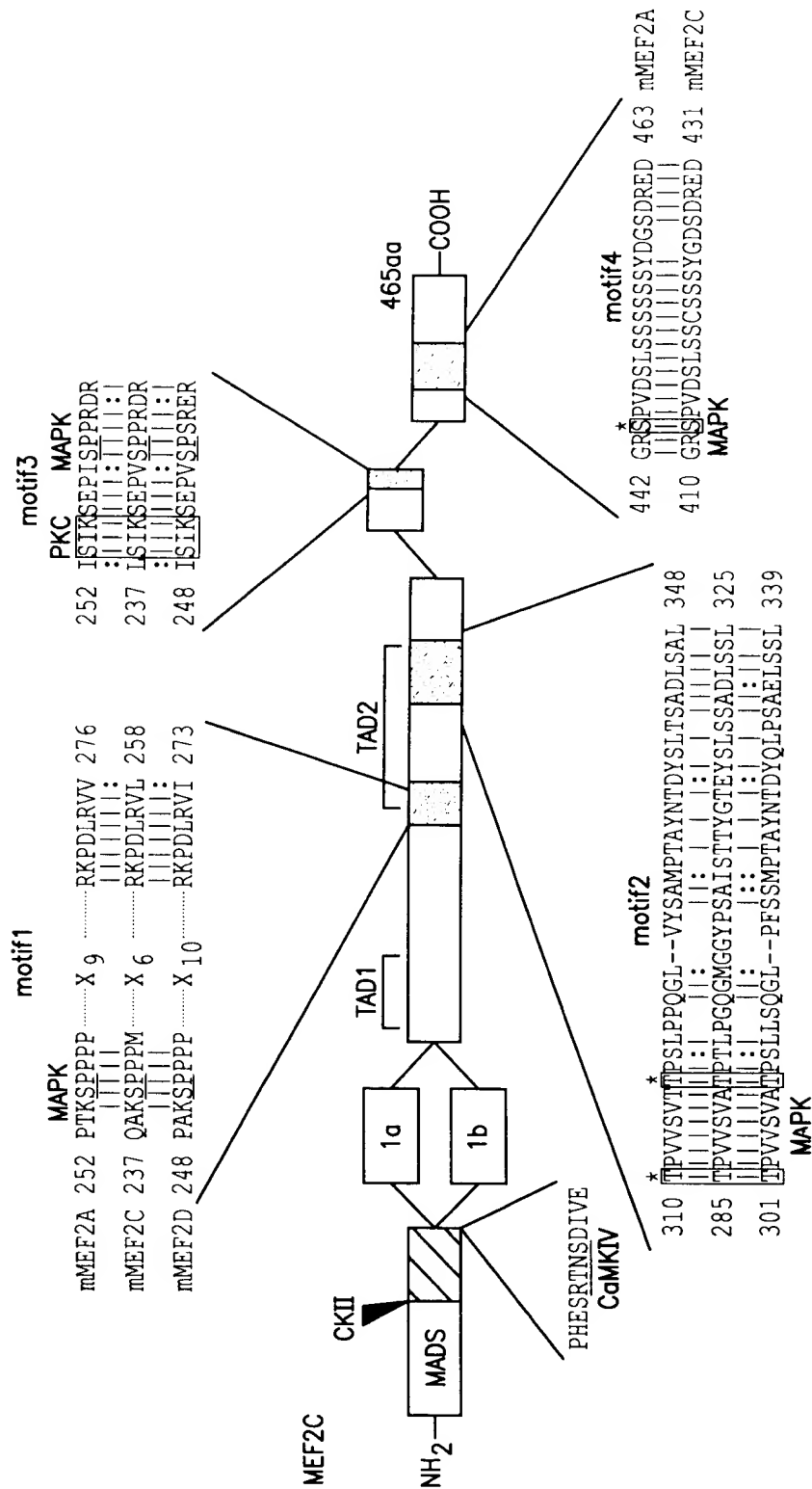


FIG. 1B

```

1  gaattttctg caaggatcat atctaagtgc acttttttgc gatacttcat ttctagacat
61  tgagtctcac tctaccccc aggctgaagt gcagtggtgt gatctcggtt cactgcaacc
121 tccgcctcca gggtcaagtg attctcgtac ctcagcctcc cgagtagctg ggattacagg
181 cgcctgccac catgcctggc tgatatttat attttttagta gagatggagt ttcacatgt
241 tggccaggct ggtctcgaac tctggacctc agatcttgta gaaaatttca gctgtagccc
301 ttggactaga agctgaaata acagaagctg tgtacgatgc attaggggat tgaagaaaat
361 taacttttga attaaatatt tggaatataa ggaaataagg aaagtgtact gaaaatgggg
421 cggaagaaaa tacaatcac acgcataatg gatgaaagga accgacaggt cacttttaca
481 aagagaaagt ttggattaat gaagaaagcc tatgaactta gtgtgctctg tgactgtgaa
541 atagcactca tcattttcaa cagctctaac aaactgtttc aatatgtatg cactgatatg
601 gacaaagtct ttctcaagta tacagaatat aatgaacctc atgaaagcag aaccaactcg
661 gatattgttg aggctctgaa caagaaggaa cacagagggt gcgacagccc agaccctgat
721 acttcatatg tgctaactcc acatacagaa gaaaaatata aaaaaattaa tgagggaattt
781 gataatatga tgcggaatca taaaatcgca cctgggtctgc cacctcagaa cttttcaatg
841 tctgtcacag ttccagtgac cagccccaat gctttgtcct acactaacc agggagtcca
901 ctgggtgtccc catctttggc agccagctca acgttaacag attcaagcat gctctctcca
961 cctcaaacca cattacatag aaatgtgtct cctggagctc ctcagagacc accaagtact
1021 ggcaatgcag gtgggatgtt gagcactaca gacctcacag tgccaaatgg agctggaagc
1081 agtccagtgg ggaatggatt tgtaaactca agagcttctc caaatttgat tggagctact
1141 ggtgcaaata gcttaggcaa agtcatgcct acaaagtctc cccctccacc aggtgggtgt
1201 aatcttggaa tgaacagtag gaaaccagat cctcgagttg tcatccccc ttcaagcaag
1261 ggcagatgac ctccactatc ggaggaagag gaattggagt tgaacacca aaggatcagt
1321 agttctcaag ccactcaacc tcttgctacc ccagtcgtgt ctgtgacaac cccaagcttg
1381 cctccgcaag gacttgtgtg ctcagcaatg ccgactgcct acaacactga ttattcactg
1441 accagcgctg acctgtcagc ccttcaaggc ttcaactcgc caggaatgct gtcgctggga
1501 caggtgtcgg cctggcagca gcaccaccta ggacaagcag cctcagctc tcttggtgt
1561 ggagggcagt tatctcaggg ttccaattta tccattaata ccaacccaaa catcagcatc
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1681 cagcagcagc agcagcagca gcagccgccc ccaccaccgc agccccagcc acaacccccg
1741 cagccccagc cccgacagga aatggggcgc tccccgtgtg acagtctgag cagctctagt
1801 agctcctatg atggcagtgat tcgggaggat ccacggggcg acttccattc tccaattgtg
1861 cttggccgac ccccaaacac tgaggacaga gaaagccctt ctgtaaagcg aatgaggatg
1921 gacgcgtggg tgacctaaag cttccaagct gatgttgta cttttgtgtt actgcagtga
1981 cctgccttac atatctaaat cggtaaataa ggacatgagt taaatatatt tatatgtaca
2041 tacatatata tatcccttta catatatatg tatgtgggtg tgagtgtgtg tgtatgtgtg
2101 ggtgtgtgtt acatacacag aatcaggcac ttacctgcaa actccttgta ggtctgcaga
2161 tgtgtgtccc atggcagaca aagcaccctg taggcacaga caagtctggc acttcccttg
2221 actacttgtt tcgtaaagat aaccagtttt tgcagagaaa cgtgtaccca tatataattc
2281 tcccacacta gcttgcagaa acctagaggg cccctactt gttttattta actgtgcagt
2341 gactgtagtt acttaagaga aaatgctttg tagaacagag cagtagaaaa gcaggaacca
2401 agaaagcaat actgtacata aaatgtcatt tatattttcc aacctggcat ggggtgtctgt
2461 tgcaaagggg tgcaggggaa agggctgttg atattaaaaa caaacaacaa aaaaaagccc
2521 cacacataac tgttttgcac gtgcaaaaat gtattgggtc aagaagtgat ctttagctaa
2581 taaagaaaga gaatagaaaa cagcatgag atattcagaa aatactagcc tagaaatata
2641 gagcattaac aaaggaaaat taatatatta agttataatt ggaatatgtc agaagtttct
2701 ttttacattc atatcttaaa aattaaagaa actgatttta gctcatgtat attttatatg
2761 aaagaaaaca ccttatgaa ttgatgacta tatataaaat tatattcact acttttgaac
2821 acattctgct atgaattatt tatataagcc aaagctatat gttgtaactt ttttttagag
2881 aatagcttta tcttggttta actcttttag tttattttta gaggggaaaa caaaaatata
2941 ttgcaagcag aaccttgaaa aaaaaaagg aattc
    
```

FIG. 2A

FIG. 2B

```

1  cgggggtcgc tatggaggag ccggagatgc agtcaaggg gaagaaagtc acggacaagt
61  tactgagag cgtctacgtc ctggccaacg agccatccgt ggccctgtac cggctgcagg
121 agcatgtgcg tcgtccctc cccagactgg cccagcacia ggcagacatg cagcgttggg
181 aggagcagag ccaggagacc atctacactg tggagtacgc ctgcagcgcc gtgaagaacc
241 tgggtggacag cagcgtctac ttccgcagcg tggagggtct gctcaaacag gccatcagca
301 tccgggacca tatgaatgcc agtgcccagg gccacagccc ggaggaacca ccccgccct
361 cctcagcctg atcctggaag agactcgggg ccccccagcc tccgccaacc cagacaaaga
421 tcattccact cagcctggga cgatggggag gaaaaaaatc cagatctccc gcctcctgga
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541 tgagctgagc gtgctctgtg actgtgagat agccctcatc atcttcaaca gcgccaaccg
601 cctcttccag tatgccagca cggacatgga ccgtgtgctg ctgaagtaca cagagtacag
661 cgagccccac gagagccgca ccaacactga catcctcgag acgctgaagc ggaggggcat
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781 tcggaggctg gcaggcgaag ggggtgatcc ggccttgccc cgaccccggc tgtatcctgc
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901 cccagtgagg cttggggaag cactgcccgc ccagagccgc ccatctccct tccgaccagc
961 agcccccaaa gccgggcccc caggcctggt gcaccctctc ttctaccaa gccacctcac
1021 cagcaagaca ccacccccac tgtacctgcc gacggaaggg cggaggtcag acctgcctgg
1081 tggcctggct gggccccgag ggggactaaa cacctccaga agcctctaca gtggcctgca
1141 gaacccctgc tccactgcaa ctcccggacc cccactgggg agcttccctc tctccccgg
1201 aggcccccca gtgggggccc aagcctgggc gaggagggtc cccaaccgg cggcgccctc
1261 ccgccgaccc cccagtcag catcaagtct gagcgccctc ctccggcccc cggggggccc
1321 ggcgactttc ctaagacctt cccctatccc ttgctcctcg cccggtccct ggcagagcct
1381 ctgcggcctg ggcccgcctt gcgcggctg cccttgcccg acggctggcc cgggtaggag
1441 atcacccggt ggcaccagcc cagagcgctc gccaggtacg gcgagggcac gtggggaccc
1501 cacctccctc caggcctctt cagagaagac ccaacagtga cccccccctc cgcgggtggg
1561 gcttggaggt gggcggtggt actcaatcca ccctgggggg ctcttttctt tcttctatt
1621 tgtgtgtata tccacaaata aaacgcgcgt ggcgtccgtg gacaaaaaa a
    
```

FIG. 3A

MGRKKIQISRILDQRNRQVTFTKRKFGLMKKAYELSVLCDCEIALIIIFNSANRLFQYASTMDRV
LLKYTEYSEPHESTRNTDILETLKRRGIGLDGPELEPDEGPPEPGEKFRRLAGEGGDPALPRPRL
YPAAPAMPSPDVVYGALPPPGCDPSGLGEALPAQSRPSPFRPAAPKAGPPGLVHPLFSPSHLTSK
TPPPLYLPTEGRRSDLPGGLAGPRGGLNTSRSLYSLQNPCSTATPGPPLGSFPFLPGGPPVGAE
AWARRVPQPAAPRRPPQSASSLSASLRPPGAPATFLRPSPIPCSSPGPWQSLCGLGPPCAGCPW
PTAGPGRRSPGGTSPERSPGTARARGDPTSLQASSEKTQQ

FIG. 3B

1 gaattcccag ctctctgctc gctctgctcg cagtcacaga cacttgagca cagcgtaca
61 cccagacatc ttccggctgc tattggattg actttgaagg ttctgtgtgg gtcgccgtgg
121 ctgcatgttt gaatcagggtg gagaagcact tcaacgctgg acgaagtaaa gattattgtt
181 gttatttttt tttctctctc ctctctctct taagaaagga aaatatccca aggactaatc
241 tgatcgggtc ttccctcatc aggaacgaat gcaggaattt gggaactgag ctgtgcaagt
301 gctgaagaag gagatttgtt tggaggaaac aggaaagaga aagaaaagga aggaaaaaat
361 acataatttc agggacgaga gagagaagaa aaacggggac tatggggaga aaaaagattc
421 agattacgag gattatggat gaacgtaaca gacaggtgac atttacaagg aggaatttg
481 ggttgatgaa gaaggcttat gagctgagcg tgctgtgtga ctgtgagatt gcgctgatca
541 tcttcaacag caccaacaag ctgttccagt atgccagcac cgacatggac aaagtgttc
601 tcaagtacac ggagtacaac gagccgcatg agagccggac aaactcagac atcgtggaga
661 cgttgagaaa gaagggcctt aatggctgtg acagcccaga ccccgatgag gacgattccg
721 taggtcacag cctgagtcct gaggacaagt acaggaaaat taacgaagat attgatctaa
781 tgatcagcag gcaaagattg tgtgctgttc caccctccaa cttcgagatg ccagtctcca
841 tcccagtgct cagccacaac agtttgggtg acagcaacc tgtcagctca ctgggaaacc
901 ccaacctatt gccactggct cacccttctc tgcagaggaa tagtatgtct cctgggtgtaa
961 cacatcgacc tccaagtgca ggtaacacag gtggtctgat ggggtggagac ctcacgtctg
1021 gtgcaggcac cagtgcaggg aacgggtatg gcaatccccg aaactcacca ggtctgctgg
1081 tctcacctgg taacttgaac aagaatatgc aagcaaaatc tctcccca atgaatttag
1141 gaatgaataa ccgtaaacca gatctccgag ttcttattcc accaggcagc aagaatacga
1201 tgccatcagt gtctgaggat gtgcacctgc ttttgaatca aaggataaat aactcccagt
1261 cggctcagtc attggctacc ccagtgggtt ccgtagcaac tctacttta ccaggacaag
1321 gaatgggagg atatccatca gccatttcaa caacatatgg taccgagtac tctctgagta
1381 gtgcagacct gtcactctctg tctgggttta acaccgccag cgctcttcac cttgggttcag
1441 taactggctg gcaacagcaa cactacata acatgccacc atctgcctc agtcagttgg
1501 gagcttgac tagcactcat ttatctcaga gttcaaactc ctccctgect tctactcaaa
1561 gccccaacat caagtcagaa cctgtttctc ctctagaga ccgtaccacc accccttcga
1621 gatacccaca acacacgcgc cagcaggcgg ggagatctcc tgttgacagc ttgagcagct
1681 gtagcagttc gtacgacggg agcgaccgag aggatcccg gaacgaattc ctacccccca
1741 ttggactcac cgaccttcg ccggacgaaa gggaaagtcc ctacgtcaag cgcattgcgac
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1981 gtgatacagt ataaagataa acagaaatgc tgagataagc ttagcacttg agttgtacaa
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2701 tttgctaacc aagataactg ttttctcttt gtagaagttt tgtttttgaa atgtgtattt
2761 ctaattatat aaaatattaa gaatctttta aaaaaatctg tgaaattaac atgcttgtgt
2821 atagctttct aatatatata atattatggt aatagcagaa gttttgttat cttaatagcg
2881 ggaggggggt atatttgtgc agttgcacat ttgagtaact attttcttc tgttttctt
2941 tactctgctt acattttata agtttaaggt cagctgtcaa aaggataacc tgtgggggta
3001 gaacatatca cattgcaaca cctaaattg tttttaatac attagcaate tattgggtca
3061 actgacatcc attgtatata ctagtttctt tcatgctatt tttattttgt ttttgcatt
3121 tttatcaaat gcagggcccc tttctgatct caccatttca ccatgcatct tggaaattcag
3181 taagtgcata tcctaacttg cccatattct aaatcatctg gttgggtttc agcctagaat
3241 ttgatacgct ttttagaaat atgccagaaa tagaaaagct atgttggggc acatgtcctg

FIG. 4A

3301 caaatatggc cctagaaaca agtgatatgg aatttacttg gtgaataagt tataaattcc
3361 cacagaagaa aaatgtgaaa gactgggtgc tagacaagaa ggaagcaggt aaagggatag
3421 ttgctttgtc atccgttttt aattatttta actgaccctt gacaatcttg tcagcaatat
3481 aggactgttg aacaatcccg gtgtgtcagg acccccaaat gtcacttctg cataaagcat
3541 gtatgtcatc tattttttct tcaataaaga gatttaatag ccatttcaag aaatcccata
3601 aagaacctct ctatgtccct ttttttaatt taaaaaaatg actcttgtct aatattcgtc
3661 tataagggat taattttcag accctttaat aagtgagtgc cataagaaag tcaatatata
3721 ttgttttaaaa gatatttcag tctaggaaag attttccttc tcttggaatg tgaagatctg
3781 tcgattcatc tccaatcata tgcattgaca tacacagcaa agaagatata ggcagtaata
3841 tcaacactgc tatatcatgt gtaggacatt tcttatccat tttttctctt ttacttgcac
3901 agttgctatg tgtttctcat tgtaaaaggc tgccgctggg tggcagaagc caagagacct
3961 tattaactag gctatatttt tcttaacttg atctgaaatc cacaattaga ccacaatgca
4021 cctttgggtg tatccataaa ggatgctagc ctgccttgta ctaatgtttt atatatt

FIG. 4A CONTINUED

MGRKKIQITRIMDERNRQVTFTKRKFGLMKKAYELSVLCDCEIALIIFNSTNKLFQYASTDMDKV
LLKYTEYNEPHESRTNSDIVETLRKKGLNGCDSPDPDADDSVGHSPESDKYRKINEDIDLMISR
QRLCAVPPPNFEMPVSIPVSSHNSLVYSNPVSSLGNPNLLPLAHPSLQRNSMSPGVTHRPPSAGN
TGGLMGDLTSGAGTSAGNGYGNPRNSPGLLVSPGNLNKNMQAKSPPPMNLGMNNRKPDRLVLIP
PGSKNTMPSVSEDVDLLNQRINNSQSAQSLATPVVSVATPTLPGQGMGGYPSAISTTYGTEYSL
SSADLSSLSGFNTASALHLGSVTGWQQQHLHNMPPSALSQLGACTSTHLSQSSNLSLPSTQSLNI
KSEPVSPPRDRTTTPSRYPQHTRHEAGRSPVDSLSSCSSSYDGSREDHRNEFHSPIGLTRPSPD
ERESPSVKRMRLSEGWAT

FIG. 4B

```
1  caggggcgag  ggctaccgcg  tctttgccgt  gacaacaccg  ttccccagc  cgggctggag
61  gctgtgcaga  aggtatcctg  cagaccatga  actgagcact  gttcccagac  cgttcatgag
121  cacagtgtaa  ggtgtgccga  gacccaccac  ccagcgagcc  cctccccctc  gtagcactga
181  ggacccccgg  agaagatggg  gaggaaaaag  attcagatcc  agcgaatcac  cgacgagcgg
241  aaccgacagg  tgactttcac  caagcggaag  tttggcctga  tgaagaaggc  gtatgagctg
301  agcgtgctat  gtgactgcga  gatcgcactc  atcatcttca  accactccaa  caagctgttc
361  cagtacgcca  gcaccgacat  ggacaagggt  ctgctcaagt  acacggagta  caatgagcca
421  cacgagagcc  gcaccaacgc  cgacatcatc  gagaccctga  ggaagaaggg  cttcaatggc
481  tgcgacagcc  ccgagcccg  cggggaggac  tcgctggaac  agagccccct  gctggaggac
541  aagtaccgac  gcgccagcga  ggagctcgac  gggctcttcc  ggcgctatgg  gtcaactgtc
601  ccggccccca  actttgccat  gcctgtcacg  gtgcccggtg  ccaatcagag  ctcactgcag
661  ttcagcaatc  ccagcggtc  cctggtcacc  ccttccctgg  tgacatcatc  cctcacggac
721  ccgcggctcc  tgteccccca  gcagccagca  ctacagagga  acagtgtgtc  tctggcctg
781  ccccgaggc  cagctagtgc  gggggccatg  ctggggggtg  acctgaacag  tgctaacgga
841  gcctgcccc  gccctgttgg  gaatggctac  gtcagtgtc  gggcttccc  tggcctcctc
901  cctgtggcca  atggcaacag  cctaaacaag  gtcctccctg  ccaagtctcc  gccccacct
961  acccacagca  cccagcttgg  agccccagc  cgcaagcccg  acctgcgagt  catcacttcc
1021  caggcaggaa  aggggttaat  gcatcacttg  actgaggacc  attagatct  gaacaatgcc
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1141  acgccagtt  tactcagcca  gggcctcccc  ttctcttcca  tgccccactg  ctacaacaca
1201  gattaccagt  tgaccagtgc  agagctctcc  tccttaccag  cctttagtcc  acctgggggg
1261  ctgtcgctag  gcaatgtcac  tgcttgcaa  cagccacagc  agccccagca  gccgcagcag
1321  ccacagctc  cacagcagca  gccaccgcag  ccacagcagc  cacagccaca  gcagcctcag
1381  cagccgcaac  agccacctca  gcaacagtcc  cacctgggtc  ctgtatctct  cagcaacctc
1441  atccccggca  gccccctgcc  ccacgtgggt  gctgccctca  cagtcaccac  ccacccccac
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1621  ggatcctatg  agacgggaga  ccgggatgac  ggacgggggg  acttcggggc  cacactgggc
1681  ctgtgcgcc  cagccccaga  gcctgaggct  gagggctcag  ctgtgaagag  gatgcggctt
1741  gatacctgga  cattaaagtg  acgattccca  ctccccctc  ctcagcctcc  ctgatgaaga
1801  gttgacaatc  tcaccgccc  cccttccctg  ccccgggctc  ctcccgctcg  acccccactt
1861  cctttcttgt  gcttcgtgtc  ctgttgacgg  ttacatttgt  gtataattat  tatattatt
```

FIG. 5A

MGRKKIQIQRITDERNRQVTFTKRKFGLMKKAYELSVLCDCEIALIIFNHSNKLQYASTDMDKV
LLKYTEYNEPHESRTNADIIETLRKKGFNGCDSPEPDGEDSLEQSPLEDKYRRASEELDGLFRR
YGSTVPAPNFAMPVTVPVSNQSSLQFSNPSGSLVTPSLVTSSLTDPRLSPQQPALQRNSVSPGL
PQRPASAGAMLGGDLNSANGACSPVGNQYVSARASPGLLPVANGNSLNKVI PAKSPPPPTHSTQ
LGAPSRKPDLRVITSQAGKGLMHHLTEDHLDLNNQRLGVSQSTHSLTPVVSVA TPSSLSSQGLP
FSSMPTAYNTDYQLTSAELSSLPAFSSPGGLSLGNVTAWQQPQQPQQPQQPQQPQQPQQPQQPQ
PQQPQQPQQPQQPQQSHLVPVSLSNLIPGSPLPHVGAALTVTTHPHISIKSEPVSPSRERS PAPP
PAVFPAARPEPGDGLSSPAGGSYETGDRDDGRGDFGPTLGLLRPAPEPEAE GSAVKRMRLDTWTL
K

FIG. 5B

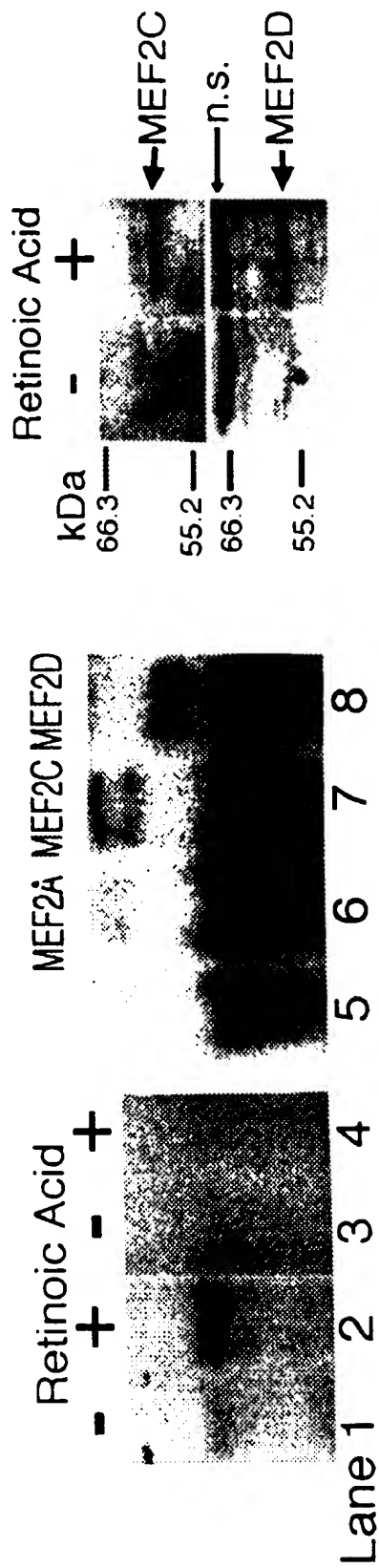


FIG. 6A

FIG. 6B

FIG. 6C



FIG. 6D



FIG. 6E



FIG. 6F

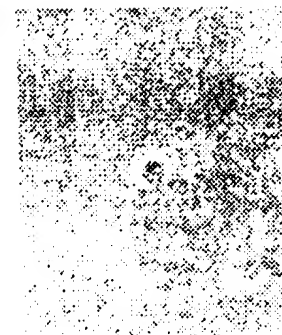


FIG. 6G

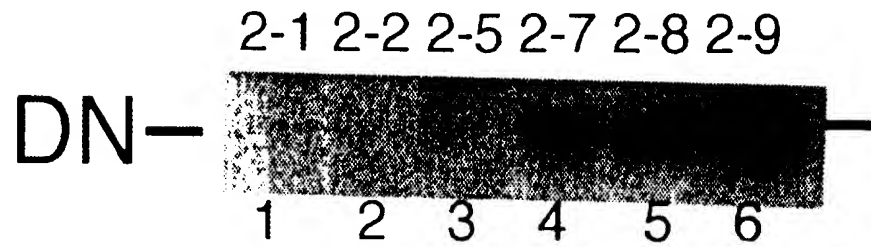


FIG. 7A

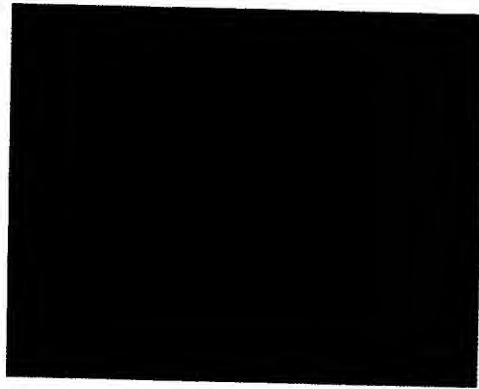


FIG. 7B

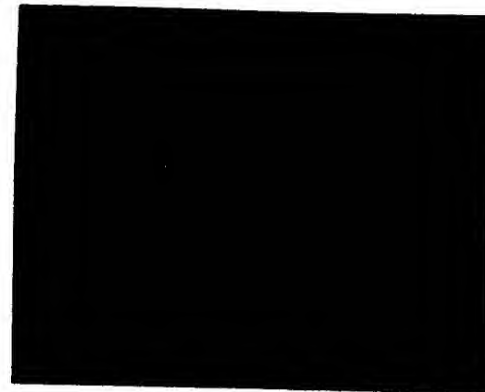


FIG. 7C

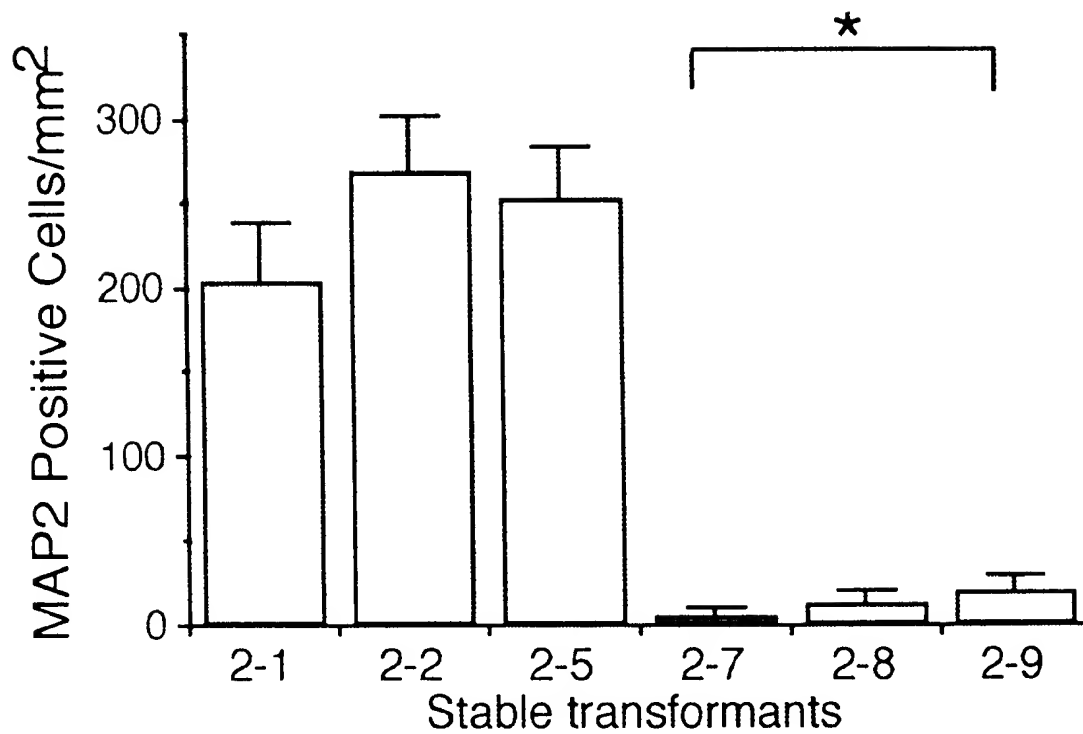


FIG. 7D

Nestin (Multipotent Precursor Marker)



FIG. 8A

Hu (Unipotent Precursor Marker)

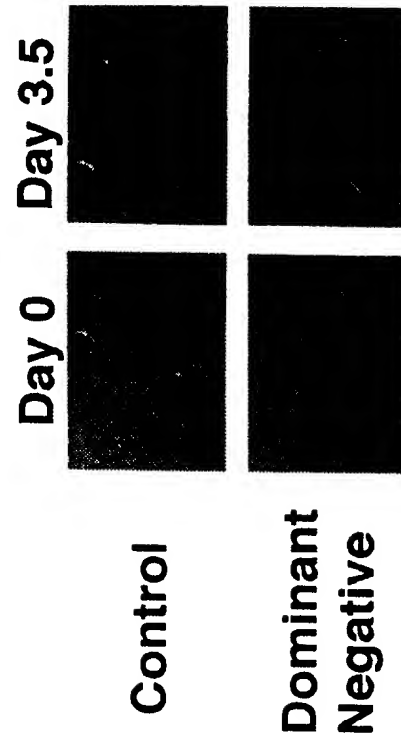


FIG. 8C

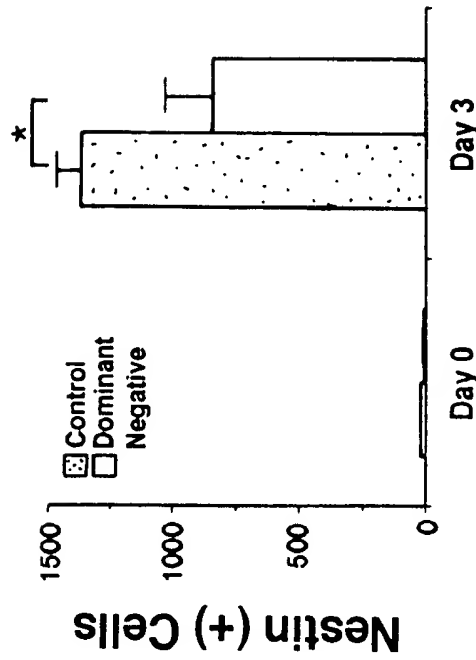


FIG. 8B

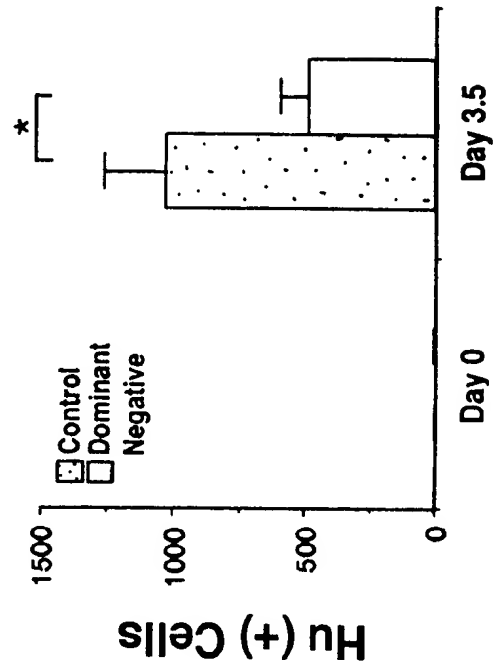


FIG. 8D

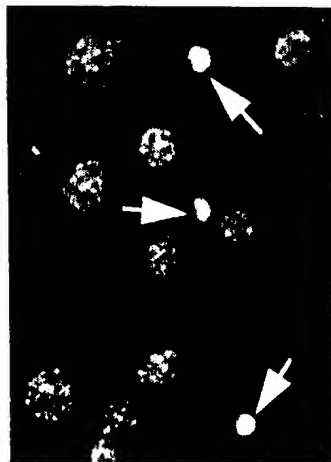


FIG. 9A

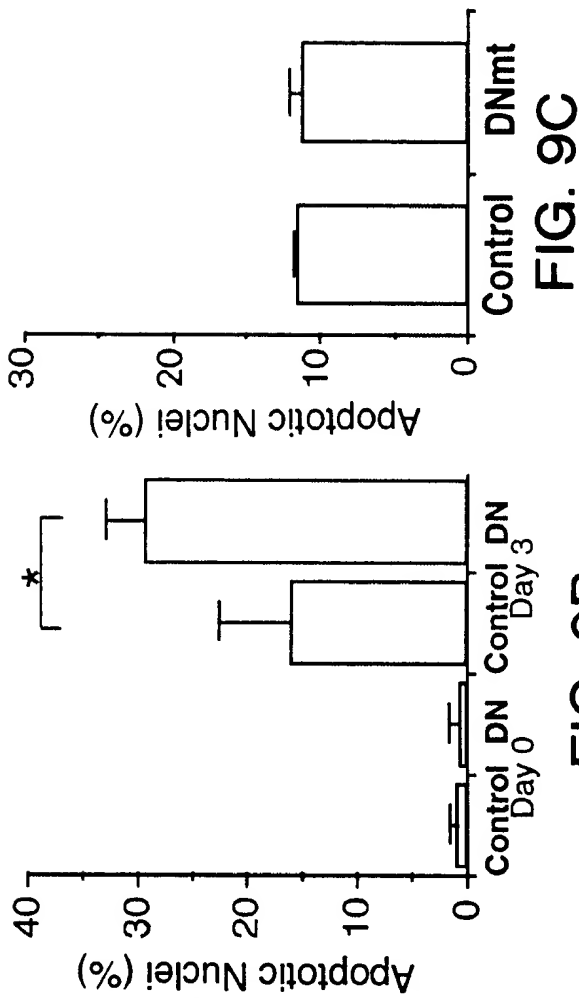


FIG. 9B

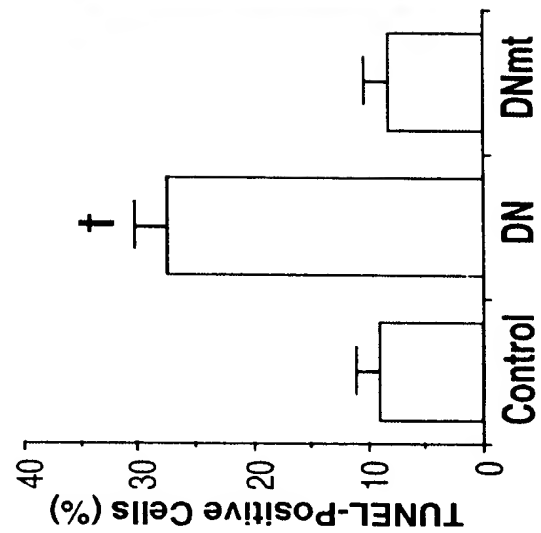


FIG. 9D



FIG. 9E

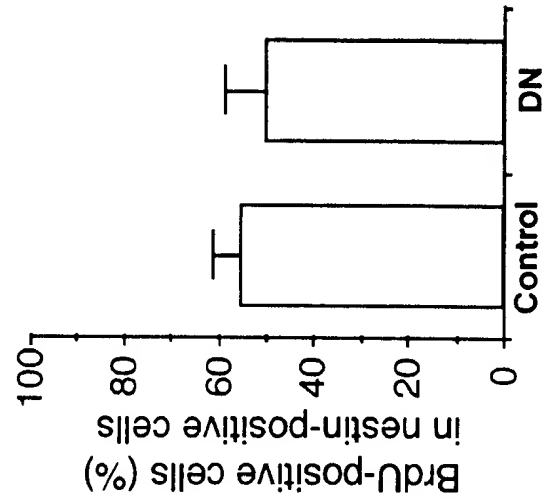


FIG. 9F

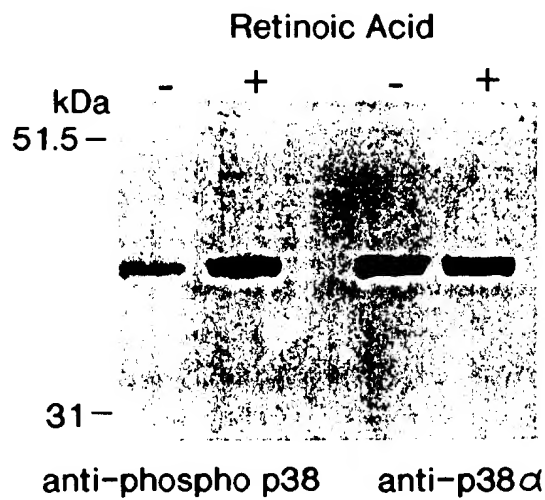


FIG. 10A

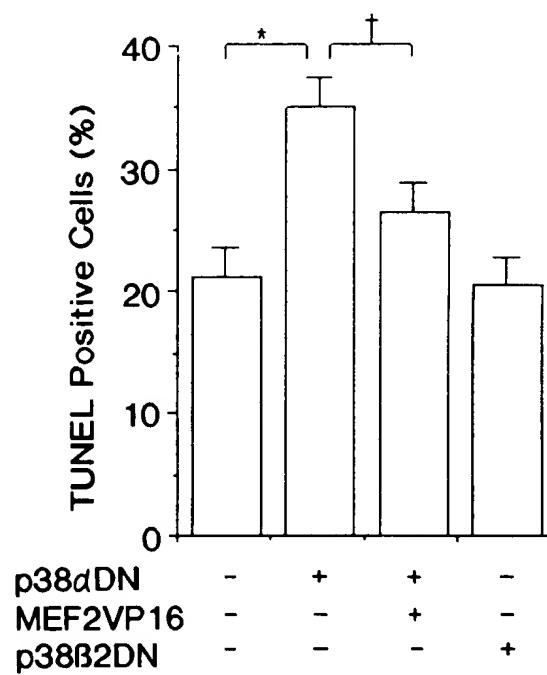


FIG. 10B